

### **REMARKS**

This response is intended to fully respond to the Office Action mailed December 28, 2007. In that Office Action claims 1-4, 6-11, 13, 24, 16-20 and 32-41 were examined, and all claims were rejected. Specifically, the claims were rejected under 35 U.S.C. § 103(a) based on various combinations of Shen (USPN 6,611,850); Musante et al. (USPN 7,054,890); Bly et al. (USPN 5,008,853); Burns et al. (USPN 6,088,694); Sherman (USPN 5,832,508); Harrison et al. (USPN 6,622,164); Almond et al. (USPN 6,112,024); Vasudevan et al. (USPN 6,598,059); Trede et al. (USPN 5,873,103); Martin, Jr. et al. (USPN 6,610,105); Benayoun (USPN 6,510,552); Morris (USPN 5,634,052); Mason (USPN 4,503,499); and Barney et al. (USPN 6,212,512).

Claims 1, 6-8, 13, 14, 16, 18, 19, and 32 are being amended herewith. Claims 2, 10, 11, 20, 40 and 41 are being canceled and no claims are newly added. Reconsideration of the claims, as originally filed and subsequently amended is respectfully requested.

### **Interview Summary**

The undersigned would like to thank Examiner Nguyen for the in-person interview conducted on March 11, 2008. During the interview, the undersigned and Examiner Nguyen discussed claim 1 and the Musante reference. The undersigned explained differences between claim 1 and the Musante reference. Also, the undersigned noted to Examiner Nguyen that Shen includes statements that teach against combination with Musante. No agreement was reached on the allowance of claims.

### **Claim Rejections – 35 U.S.C. § 103**

Applicants respectfully traverse the rejections of claims 1-4, 6-11, 13, 24, 16-20 and 32-41 because the references cited in the office action fail to teach all of the elements of the claims. Specifically, the references fail to teach: a plurality of shadow volumes each of which contains a prior version of the selected file that may be maintained such that its data is accessible, wherein each shadow volume is a different point in time read-only copy of the logical volume at a different point in time; receiving an indication that a filtering process should be performed; and in response to receiving an indication that a filtering process should be performed, filtering from the set of data, a timestamp associated with a shadow volume that includes a prior version of the

selected file that is not unique with respect to a prior version of the selected file already represented in the set of data by another timestamp.

In embodiments, the present invention provides access to point-in-time copies of a volume, e.g., shadow volumes, from which a prior version of a file can be retrieved. A user can request a list of prior versions of a file with a user interface. A list of timestamps corresponding to shadow volumes that may contain versions of the file is automatically generated and displayed to a user. The shadow volumes are read-only copies of a logical volume at different points in time. In some embodiments, a filtering option is provided to a user that allows a user to request a file filtering process that checks so as to not add timestamps to the list that correspond to shadow volumes with file versions that have not changed from one already on the list. The filter process is optional because a user may not always prefer to have the filtering process active. For example, when one or more shadow volumes have corrupt data, a user may want the filtering process turned off to allow access to “duplicate” data that is not corrupted. None of the references, alone or in combination, disclose these features of the claimed invention.

Independent claims 1 and 32 are currently amended and generally recite: a plurality of timestamps, each timestamp corresponding to a shadow volume that may have a prior version of the file or folder maintained therein, wherein each shadow volume is a different point in time read-only copy of a logical volume at different times. None of the references cited in the office action teach a plurality of shadow volumes each of which is a different point in time read-only copy of the logical volume at a different point in time. Indeed, the office action specifically acknowledges that neither Shen nor Bly, which are the main references used to reject the claims, teach this feature of claims 1 and 32. *See Office Action 12/28/07*, p. 5 (“Chen [sic] does not teach . . . wherein each shadow volume is a point in time copy of the logical volume . . . ”); p. 9 (“Bly does not explicitly teach . . . wherein each shadow volume is a point in time copy of the logical volume . . . ”); p. 24 (“Bly does not explicitly teach . . . a shadow volume that may have a prior version of the file or folder . . . ”).

The office action relies on Musante to compensate for the deficiencies in the other references. The office action alleges that Musante teaches a volume pair including an original volume and a point-in-time copy of the original volume. *See Office Action 12/28/07*, p. 5. The point-in-time copy described in Musante is not analogous to the shadow volumes recited in the claims. The claims specifically recite that the shadow volumes are read-only copies and that

each shadow volume is a different point in time copy of a logical volume at different times. In contrast, Musante specifically teaches that the point-in-time copy is continually updated to reflect changes made to the original volume. As noted in Musante, “the data-imaging module allows data updates to be sent from the master volume to the shadow volume as well as updates to be sent from the shadow volume to the master volume when desired.” *Musante*, col. 4, lines 60-63. Musante further states that “applications can read and write to either the master or the shadow volumes.” *Musante*, col. 7, lines 60-64. Even when multiple shadow volumes are created, Musante teaches that all of them are updated to reflect current changes made to the original, master volume. *Musante*, col. 9, lines 20-23 (“... writing to the master volume will cause master data to be copied to each of the shadow volumes before being written to the master.”).

Musante therefore does not teach shadow volumes that are read-only copies of a logical volume at a specific point in time, such that a previous version of a file may be restored from the shadow volumes. In Musante, the shadow volumes are all eventually updated to store the same version of a file as stored in the original volume. Musante further fails to teach automatically retrieving timestamps associated with such shadow volumes. For at least these reasons, claims 1 and 32 are patentable over the combination of references cited in the office action. Claims 3-9, 13, 14, 16, 18, 19, and 33-39 depend upon one of claims 1 and 32 and are allowable for at least the same reasons.

Claims 1 and 32 further generally recite receiving from the user interface an indication that a filtering process should be performed; in response to receiving an indication that a filtering process should be performed, filtering from the set of data, a timestamp associated with a shadow volume that includes a prior version of the selected file that is not unique with respect to a prior version of the selected file already represented in the set of data by another timestamp. None of the references and in particular, as is acknowledged in the office action, Shen, Musante, and Bly (see *Office Action*, 12/28/07, p. 18 and 19) teach the specific filtering steps recited in the independent claims.

The office action alleges that Vasudevan teaches a type of filtering. However, Vasudevan’s teaches that a version identifier is used to retrieve the appropriate version of a table that is requested. See *Vasudevan*, col. 9, lines 9-40. The process described in Vasudevan “facilitate[s] the retrieval of information from records related to the appropriate version.” See

*Vasudevan*, col. 9, lines 9-10. *Vasudevan* does not teach that in response to receiving an indication that a filtering process should be performed, filtering a timestamp associated with a shadow volume that includes a prior version of the selected file that is not unique with respect to a prior version of the selected file already represented in a set of data by another timestamp.

Furthermore, *Vasudevan* does not teach “receiving an indication that a filtering process should be performed,” as is recited in independent claims 1 and 32. In other words, *Vasudevan* does not provide the flexibility of allowing a filtering process to be activated or otherwise left inactive. As described above, this feature allows a user to control whether to access duplicate data. No other reference cited in the office action compensates for the deficiency in *Vasudevan*. For these additional reasons, claims 1 and 32 are patentable over the combination of references cited in the office action. Claims 3-9, 13, 14, 16, 18, 19, and 33-39 depend upon one of claims 1 and 32 and are allowable for at least the same reasons.

**Conclusion**

This Amendment & Response fully responds to the Office Action mailed on December 28, 2007. Still, the Office Action may contain arguments and rejections that are not directly addressed by this Response because they are rendered moot in light of the preceding arguments in favor of patentability. Hence, failure of this Amendment & Response to directly address an argument raised in the Office Action should not be taken as an indication that the Applicant believes the argument has merit. Additionally, failure to address statements/comments made by the Examiner does not mean that the Applicants acquiesce to such statements or comments. Furthermore, the claims of the present application may include other elements, not discussed in this Response, which are not shown, taught, or otherwise suggested by the art of record. Accordingly, the preceding arguments in favor of patentability are advanced without prejudice to other bases of patentability.

It is believed that no fees are due with this Amendment & Response. However, the Commissioner is hereby authorized to charge any deficiencies or credit any overpayment with respect to this patent application to deposit account number 13-2725.

In light of the above remarks, it is believed that the application is now in condition for allowance and such action is respectfully requested. Should any additional issues need to be resolved, the Examiner is requested to telephone the undersigned to attempt to resolve those issues.

Respectfully submitted,

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